

## The State and Future of Groundwater Availability in Indiana

### The Indiana Groundwater Focus Committee

The Groundwater Focus Committee of the Indiana Water Monitoring Council is a multi-faceted organization that brings Federal, State and Local agencies, non- and for-profit environmental organizations, and academic institutions together with the explicit purpose of fostering good stewardship of groundwater resources in Indiana. It is the position of this committee that:

1. In 2013, groundwater is generally an abundant resource in much of the State. That abundance may be limited in the future by increased development, unsustainable use, drought, and weather variability. Specific regions such as south-central Indiana have limited groundwater, which adversely impacts economic development and highlights the importance of protecting existing resources.
2. Groundwater is an essential resource for a healthy human population, ecosystem and aquatic habitats; is the critical ingredient for the maintenance and growth of agriculture, and it is a highly desirable factor sought by entities seeking to bring new commerce to the State of Indiana.
3. Groundwater, surface water (including lakes, ponds, streams, and wetlands), and soil moisture are one continuous resource, and impacts to one should be viewed as potential impacts to the others.
4. The quality of groundwater, including chemical and biological properties, can and should limit some of its uses in Indiana. Groundwater quality in some areas has not been adequately documented and may be a risk to the end user.
5. Educating the People of Indiana on the value of Indiana's water resources now will likely enhance the responsible stewardship of this precious commodity and foster its preservation for a vital population and economy in the future.

Based on these acknowledged facts and opinions, the Groundwater Focus Committee advises the following actions be taken:

1. Conduct additional groundwater-level monitoring to identify the effects of seasonality, water use, and long-term weather patterns on groundwater availability, and areas where water availability may limit some uses,
2. Conduct groundwater-quality monitoring to identify areas where naturally occurring contaminants may negatively impact water quality and limit some uses,
3. Determine the amount of groundwater in storage in the State's aquifers and quantify the amount of groundwater that can be withdrawn without depleting the State's aquifers,
4. Implement a warning system to alert resource managers and stakeholders that critical thresholds are approaching or have been exceeded, and,
5. Create a real-time database that includes information on water availability, hydrogeologic settings, environmental characteristics including soil moisture, and supply infrastructure that can be used to determine mitigation scenarios for relieving aquifer stress during periods of drought or reduction in water quality, and,

These suggested actions can be partially accommodated by maximizing resources through improved communication, coordination, collaboration, and the sharing of data and methods by all stakeholders. Fully implementing a comprehensive groundwater plan for the State of Indiana will require additional monitoring, data analysis and synthesis, and model development.